

REMARKS

The Office Action of September 1 and the Advisory Action of November 24, 2009, have been carefully studied. Claims 12 and 17-29 currently appear in this application. These claims define novel and unobvious subject matter under Sections 102 and 103 of 35 U.S.C., and therefore should be allowed. Applicant respectfully requests favorable reconsideration and formal allowance of the claims.

Allowed Claims

It is noted with appreciation that claims 17-22 are allowed.

Claim Amendments

Claim 12 has been amended to distinguish the claimed method from that of Oku et al., EP 1321148. The phrase, "in order to prevent an ingredient in said composition other than said unsaturated compound from being denatured by a peroxide of said unsaturated compound formed by radical reaction" has been replaced by, "in order to suppress radical reaction and thereby inhibit the formation of a peroxide of said unsaturated compound by suppressing radical reaction." Claim 12 is now directed for a method for inhibiting radical reaction to inhibit formation of a peroxide of one of a number of unsaturated compounds.

Support for this amendment is found in the specification as filed at page 4, line 23 to page 5, line 19 and Experiments 1-2 to 1-4 at pages 18-26. Experiments 1-2 to 1-4 show that radical reactions of hydrogen peroxide, lipoprotein and linoleic acid are suppressed by the cyclotetrasaccharide and the formation of peroxides thereof is well inhibited. Since the compositions used in the experiments do not comprise "a substance with active oxygen eliminating activity," but are compounds selected from the group consisting of fatty acids, simple lipids, conjugated lipids and alcohols, it is clear that the radical reactions are suppressed by the cyclotetrasaccharide.

New claims 23-29 have been submitted in order better to define the invention. Claims 23-27 find support in the specification as filed at page 14, lines 23-27. Claims 28 and 19 find support in the specification as filed at page 15, lines 28-29.

Art Rejections

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oku et al., EP 1321148. The Examiner states that Oku discloses a method for inhibiting the reduction of active oxygen eliminating activity (which involves a radical reaction), which comprises a step of incorporating the cyclotetrasaccharide into a plant substance with active

oxygen eliminating activity. The Examiner further states that, while Oku does not explicitly disclose preventing denaturation of an ingredient in the composition, it is well known that peroxides that are formed in food products and pharmaceuticals, through radical reaction, will degrade useful ingredients contained therein, such as proteins, peptides and/or amino acids. Based upon this, the Examiner asserts that it would have been obvious to conceive the invention defined in claim 12.

This rejection is respectfully traversed.

Claim 12 has been amended to recite a method for inhibiting a radical reaction by incorporating the cyclotetrasaccharide into one or more unsaturated compounds in order to inhibit the formation of peroxides of the unsaturated compounds by suppressing radical reaction.


In contrast thereto, the method of Oku is a method for maintaining active oxygen eliminating activity of a substance which possesses active oxygen eliminating activity, that is, of a substance that removes active oxygen formed by oxidation of other substances. It should be noted that "a substance with active oxygen eliminating activity" is indispensable for the method of Oku, because Oku's method inhibits radical reaction through maintaining the activity of "a substance with active oxygen eliminating activity." Oku's method does not directly inhibit radical

reaction *per se*, but Oku's method inhibits a **reduction in activity** of a substance that has active oxygen eliminating activity. There is nothing in Oku that teaches a method for inhibiting the formation of peroxide by suppressing radical reactions directly with the cyclotetrasaccharide.

In view of the above, it is respectfully submitted that the claims are now in condition for allowance, and favorable action thereon is earnestly solicited.

Respectfully submitted,

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